

IN THE CLAIMS

Please substitute claims 1-10 with the following:

1. (Currently Amended) A transmitting apparatus for transmitting a hierarchical structure of a directory for hierarchically managing locations of contents data, comprising:

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managing means for managing a hierarchical structure of a directory composed of a container entry and a leaf entry, a container entry containing information of in the immediately lower hierarchical level thereof, a leaf entry being located directly below ~~disposed in the immediately lower hierarchical level of~~ a container entry, a leaf entry not containing information of in the immediately lower hierarchical level thereof;

detecting means for detecting a change of the hierarchical structure of the directory managed by said managing means, detecting a change tracking value of said hierarchical structure on the basis of the detected result, and obtaining first difference information and second difference information ~~corresponding to the detected result~~, the first difference information being the difference of container entries ~~corresponding to the detected result~~, the second difference information being the difference of leaf entries;


generating means for generating first message and second message, the first message containing said first difference information with the addition of said change tracking value, the second message containing said second difference information with the addition of a filtering mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information; and

transmitting means for separately transmitting said the first message difference information and said the second message difference information.

2. (Currently Amended) The transmitting apparatus as set forth in claim 1,

wherein said filtering mask value is a value based on number of container entries on the container level being directly above said leaf entry ~~transmitting means adds identification information that identifies each container entry to the first difference information.~~

3. (Original) The transmitting apparatus as set forth in claim 1,

 wherein said transmitting means adds identification information that identifies each leaf entry to the second difference information.

4. (Currently Amended) A transmitting method for transmitting a hierarchical structure of a directory for hierarchically managing locations of contents data, comprising the steps of:

(a) managing a hierarchical structure of a directory composed of a container entry and a left entry, a container entry containing information of in the immediately lower hierarchical level thereof, a leaf entry being located directly below ~~disposed in the immediately lower hierarchical level of~~ a container entry, a leaf entry not containing information of in the immediately lower hierarchical level thereof;

(b) detecting a change of the hierarchical structure of the directory managed at step (a), detecting a change tracking value of said hierarchical structure on the basis of the detected result, and obtaining first difference information and second difference information ~~corresponding to the detected result,~~ the first difference information being the difference of container entries, the second difference information being the difference of leaf entries; ~~and~~

(c) generating first message and second message, the first message containing said first difference information with the addition of said change tracking value, the second message containing said second difference information with the addition of a filtering mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information; and


A2 (d) separately transmitting said the first message difference information and said the second message difference information.

5. (Currently Amended) A receiving apparatus for receiving a hierarchical structure of a directory for hierarchically managing the locations of contents data that is transmitted, comprising:

receiving means for receiving first messagedifference information, first identification information, second messagedifference information, and second identification information, the first difference information being obtained by detecting a change of container entries, the first identification information identifying each container entry added to the first difference information, the second difference information being obtained by detecting a change of leaf entries, the second identification information identifying each leaf entry added to the second difference information, the directory being composed of container entries and leaf entries, a container entry containing information of in the immediately lower hierarchical level thereof, a leaf entry not containing information of in the immediately lower hierarchical level thereof, the first message containing first difference information with the addition of change tracking value, the second message containing second difference information with the addition of a filtering

mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information;

managing means for managing the hierarchical structure of the directory formed corresponding to the first ~~messagedifference information~~ and the second ~~messagedifference information~~; and

 changing means for selectively obtaining the second ~~messagedifference information~~ and changing the hierarchical structure of the directory managed by said managing means corresponding to the obtained second ~~messagedifference information~~.

6. (Currently Amended) The receiving apparatus as set forth in claim 5,

wherein said changing means selectively obtains the second message difference ~~information~~ as a leaf entry of in the ~~immediately~~ lower hierarchical level of a container entry represented by the first identification information corresponding to selection information selectively designated to the first identification information and changes the hierarchical structure of the directory managed by said managing means.

7. (Currently Amended) A receiving method for receiving a hierarchical structure of a directory for hierarchically managing the locations of contents data that is transmitted, comprising the steps of:

(a) receiving first ~~messagedifference information~~, first identification information, second ~~messagedifference information~~, and second identification information, the first difference information being obtained by detecting a change of container entries, the first identification information identifying each container entry added to the first difference information, the second

AP difference information being obtained by detecting a change of leaf entries, the second identification information identifying each leaf entry added to the second difference information, the directory being composed of container entries and leaf entries, a container entry containing information of in the immediately lower hierarchical level thereof, a leaf entry not containing information of in the immediately lower hierarchical level thereof, the first message containing first difference information with the addition of change tracking value, the second message containing second difference information with the addition of a filtering mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information;

(b) managing the hierarchical structure of the directory formed corresponding to the first ~~messagedifference information~~ and the second ~~messagedifference information~~; and

(c) selectively obtaining the second ~~messagedifference information~~ and changing the hierarchical structure of the directory managed at step (b) corresponding to the obtained second ~~messagedifference information~~.

8. (Currently Amended) A transmitting and receiving system for transmitting a hierarchical structure of a directory for hierarchically managing locations of contents data and receiving the transmitted hierarchical structure, comprising:

first managing means for managing a hierarchical structure of a directory composed of a container entry and a leaf entry, a container entry containing information of in the immediately lower hierarchical level thereof, a leaf entry being located directly below ~~disposed in the~~

~~immediately lower hierarchical level~~ of a container entry, a leaf entry not containing information ~~of in the immediately lower hierarchical level thereof;~~

detecting means for detecting a change of the hierarchical structure of the directory managed by said managing means, detecting a change tracking value of said hierarchical structure on the basis of the detected result, and obtaining first difference information and second difference information ~~corresponding to the detected result~~, the first difference information being the difference of container entries ~~corresponding to the detected result~~, the second difference information being the difference of leaf entries;

RS generating means for generating first message and second message, the first message containing said first difference information with the addition of said change tracking value, the second message containing said second difference information with the addition of a filtering mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information;

transmitting means for adding first identification information to the first difference information and second identification information to the second difference information and separately transmitting said the first message difference information and said the second messagedifference information, the first identification information identifying each container entry, the second identification information identifying each leaf entry;

receiving means for receiving the first messagedifference information, the first identification information, the second messagedifference information, and the second identification information transmitted by said transmitting means;

second managing means for managing the hierarchical structure of the directory formed corresponding to the first message difference ~~information~~ and the second message difference ~~information~~; and

changing means for selectively obtaining the second message difference ~~information~~ and changing the hierarchical structure of the directory managed by said second managing means corresponding to the obtained second message difference ~~information~~.

9. (Currently Amended) The receiving and transmitting system as set forth in claim 8,

wherein said changing means selectively obtains the second difference information as a leaf entry of in the ~~immediately~~ lower hierarchical level of a container entry represented by the first identification information corresponding to selection information selectively designated to the first identification information and changes the hierarchical structure of the directory managed by said second managing means.

10. (Currently Amended) A transmitting and receiving method for transmitting a hierarchical structure of a directory for hierarchically managing locations of contents data and receiving the transmitted hierarchical structure, comprising the steps of:

(a) managing a hierarchical structure of a directory composed of a container entry and a leaf entry, a container entry containing information of in the ~~immediately~~ lower hierarchical level thereof, a leaf entry being located directly below ~~disposed in the immediately lower hierarchical level~~ of a container entry, a leaf entry not containing information of in the ~~immediately~~ lower hierarchical level thereof;

(b) detecting a change of the hierarchical structure of the directory managed at step (a), detecting a change tracking value of said hierarchical structure on the basis of the detected result, and obtaining first difference information and second difference information ~~corresponding to the detected result~~, the first difference information being the difference of container entries, the second difference information being the difference of leaf entries;

A2 (c) generating first message and second message, the first message containing said first difference information with the addition of said change tracking value, the second message containing said second difference information with the addition of a filtering mask value and said change tracking value of said hierarchical structure, the filtering mask value corresponding to a container entry being directly above said leaf entry which corresponds to said second difference information;

(d) adding first identification information to the first difference information and second identification information to the second difference information and separately transmitting said the first message difference information and said the second message difference information, the first identification information identifying each container entry, the second identification information identifying each leaf entry;

(d) (e) receiving the first ~~message difference information~~, the first identification information, the second ~~message difference information~~, and the second identification information transmitted at step (c);

(e) (f) managing the hierarchical structure of the directory formed corresponding to the first ~~message difference information~~ and the second ~~message difference information~~; and

A2 (f) (g) selectively obtaining the second message~~difference~~ information and changing the hierarchical structure of the directory managed at step (e) (f) corresponding to the obtained second message~~difference~~ information.
